WORKPLACE SELF-SELECTION INTO INVESTORS IN PEOPLE

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ABSTRACT

This paper estimates the effect of the Investors in People Standard on training while controlling for self-selection. Our results show that high-training workplaces self-select into Investors in People and question the value of the Standard for promoting training.

Key words: Training; treatment effects. Selection bias

JEL Classification: M5.

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1. Introduction

The centrality of human capital to economic performance features in the opening paragraphs of Smith (1776, I.I.3), and training has long been regarded as a crucial determinant of human capital development and crucial for understanding the competitive strengths of national economies (e.g., Mincer, 1958; Dustmann et al, 2008: p. 1). Interest in public programs claiming to enhance training is understandable in this context.

This paper estimates the effect of the Investors in People Standard (the Standard) on training while controlling for self-selection. The Standard offers a benchmark for training and development practices and has been widely adopted in the UK. Approximately 32 percent of workplaces are accredited (Cully et al, 1999), covering 29 percent of employment (Hoque et al, 2005). No previous work has explored the impact of workplace self-selection into the Standard. We employ a Heckman two-step approach to treatment effects (Heckman, 1976) to reassesses the effect of the Standard on training outcomes.

2. Literature

The Standard is a market-based approach to improving training. Companies decide whether or not to pursue certification, and those that satisfy independent assessors can use the Investors in People logo in their correspondence, advertising, etc.

Organizations (and the HR professionals within them) may accrue benefits from the Standard beyond increased training levels. These include facilitating differentiation strategies in product and input markets, and the building of prestige in professional networks (e.g., Bell et al, 2002;

Hoque et al, 2005). The literature on the effects of the Standard on training came under particular scrutiny with the publication of Hoque (2003), and a number of authors suggest that the Standard has had little impact on training behaviors (e.g., Douglas et al, 1999). Hoque's (2003, p. 568) conclusion that the Standard has, "come to represent little more than a 'plaque on the wall'" in some accredited organizations is based on the existence of a substantial number of accredited workplaces that do not deliver various training practices. Hoque interprets this as evidence of the ineffectiveness of the Standard for producing long-lasting change, and as behavior consistent with instrumental engagement of companies with the Standard (p. 566) despite finding a positive effect of the Standard on training in British workplaces.

The business need for the Standard may be the accreditation itself in some workplaces. Training programs may also suffer from an 'atrophy effect' (Hoque, 2003) as well as a bias towards 'hard' measures which may lead to reductions in training budgets (Down and Smith, 1998). If training budgets are falling and training is focused narrowly on business need then the net effect of the Standard may be to *reduce* training in treated workplaces, and two-tailed tests are warranted for assessing the effect of the Standard.

The existence of accredited workplaces that behave counter to the suggestions of the Standard is worthy of further investigation. We focus on the incidence and interaction of Investors in People accreditation with the levels of training delivered, the presence of training discussions between line managers and employees, and the extent to which employees feel encouraged to develop their skills. We conceptualize the Standard as a treatment and view workplaces as choosing whether or not to receive treatment. This approach avoids defining the value of the Standard only by its failures.

3. Hypotheses

Previous research leads us to specify six hypotheses associated with each training outcome. These hypotheses come in two sets of three mutually-exclusive hypotheses: the first set regarding the effect of the Standard on training activity; and the second set regarding the nature of any self-selection by workplaces into the Standard.

Examination of the coefficient on the Investors in People dummy variable in our effect equation must support one of the following three hypotheses:

Hypothesis 1a-c: Workplaces accredited by Investors in People are *more/just as/less likely* to engage in training activities than other workplaces.

Each hypothesis has some support in the literature. Hypothesis 1a is consistent with the stated aims of the Standard. Hypothesis 1c is consistent with an atrophy effect suggested by Hoque (2003, p. 566). This hypothesis is also consistent with the reduction of training budgets identified by Down and Smith (1998).

We also identify three hypotheses referring to the expected significance and sign of the inverse Mills ratio in the effect equations. These capture any self-selection into the Investors in People treatment. These hypotheses are:

Hypothesis 2a-c: Workplaces that are *less likely* to engage in training activities than other workplaces are *more/just as/less likely* to put themselves forward for accreditation than other workplaces.

Hypothesis 2a is consistent with the Standard facilitating change. The appeal of the Standard as a change management tool might be stronger for workplaces undertaking large changes to practices. Thus we might expect firms that are likely to go for the 'treatment' are those who would otherwise be unlikely to engage in training. Hypothesis 2a is also consistent with the use

of the Standard as a means of differentiation. Those firms who might otherwise be expected to provide relatively little training might find that accreditation sends a stronger signal to the marketplace. Either explanation could generate a significant negative coefficient associated with the inverse Mills ratio in the effect equation. Hypothesis 2b reflects the possibility that there is no meaningful self-selection into the Investors in People treatment, and Hypothesis 2c suggests instrumentality in the pursuit of the Standard. Workplaces that are pre-disposed to activities encouraged by the Standard might incur lower costs during accreditation as they already adhere to most criteria. A significant positive coefficient associated with the inverse Mills ratio would support Hypothesis 2c.

4. Data

We use data from the Workplace Employee Relations Survey (1998). Cross-sectional data was collected via face-to-face interviews with a main management respondent and by a self-completion questionnaire distributed to a random selection of employees in a representative sample of UK workplaces.

4.1 Variables

The Heckman approach requires the first stage estimation of the treatment equation followed by the estimation of an effect equation including the inverse Mill's ratio calculated from the treatment equation. The effect equations examine the incidence and extent of training activities with three questions to employees:

- During the last 12 months, how much training have you had, either paid for or organized by your employer?

- During the last 12 months, have you discussed your training needs with your supervisor/line manager?
- Are people working here encouraged to develop their skills?

The independent variables in the treatment equation include sets of dummy variables capturing the job role of the managerial respondent as well as important workplace characteristics. The effect equations include all of the independent variables from the treatment equation with the exception of the indicator describing the role of the managerial respondent. This exclusion is justified on the basis that HR specialists would be better-informed about accreditation status and may also be subject to social desirability associated with the prestige of the Standard in their professional networks. The effect equations also include an Investors in People dummy variable, the inverse Mills ratio calculated using the treatment equation, and a range of employee demographics.

5. Results

Table I examines the impact of the Standard on training. The results of the Heckman approach and the dummy variable approach are presented side-by-side for comparison. Employee reports of the amount of training received are presented as models 1-2. Employee reports of discussions about training are presented as models 3-4. Models 5-6 summarize the extent to which employees report that they and their colleagues are encouraged to develop their skills. In all cases, the inverse Mills ratio is positive and significant at conventional levels. This indicates self-selection into the Standard, and that models 1, 3 and 5 should be preferred.

The positive signs of the coefficients associated with the inverse Mills ratios are consistent with hypothesis 2c. Workplaces that are less likely to engage in training are less likely to seek

the Standard. Selection bias of this type should lead a simple dummy variable approach to overestimate the treatment effect, and models 2, 4 and 6 display this pattern. The bias is strong enough to reverse the sign of the treatment effects. The effect of the Standard on employee-reported training levels is negative, though this estimate is insignificant. The effect of the Standard on training discussions is negative and significant at the five-percent level. The effect of the Standard on the amount of encouragement to develop skills reported by employees is negative and significant at the one-percent level. This evidence supports hypothesis 1c.

6. Conclusion

Predisposed workplaces are more likely to put themselves forward for the Standard. After controlling for self-selection, we see no evidence that the Standard improves training. Our evidence suggests that employees receive approximately the same amount of off-the-job training as would be expected in the absence of the Standard, and on-the-job training (line manager discussions and encouragement) are *lower* in the presence of the Standard. This is consistent with a more 'top down' approach to training. It is also consistent with a focus on 'hard' aspects of training that can be easily evaluated by external assessors. These results are provocative, particularly given moves to pilot and/or introduce the Standard in other countries (Hoque et al, 2005).

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TABLE I

Examination of effects of the Standard on training. Compares the Heckman and dummy variable approaches. Coefficients calculated using WERS98 employee weights. Standard errors corrected for choice-based sampling and reported in parentheses. Models control for workplace size and employee characteristics.

	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**
	Amount of training received		Discussions in last 12 months with managers about training		Encouragement to develop skills	
Investors in People	-0.170	0.156***	-0.284*	0.270***	-0.502***	0.220***
	(0.153)	(0.023)	(0.144)	(0.020)	(0.148)	(0.023)
Inverse Mills ratio	0.195*	-	0.331***	-	0.432***	-
	(0.093)	-	(0.086)	-	(0.089)	-
Constant	0.192	0.085	-0.455***	-0.638***	2.491***	2.250***
	(0.130)	(0.119)	(0.116)	(0.106)	(0.126)	(0.116)
Observations	21078	21078	21087	21087	20615	20615
Method	Ordered probit	Ordered probit	Probit	Probit	Ordered probit	Ordered probit
Approach to estimating effectiveness of treatment	Two-step	Dummy variable	Two-step	Dummy variable	Two-step	Dummy variable

** = significant at the 0.05 level,*
*** = significant at the 0.01 level*
**** = significant at the 0.001 level*